

OCT 25 2002

K 002780



Nucletron

NUCLETRON B.V.

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Department of Health and Human Services
Centre of Device and Radiological Health
Office of Device Evaluation
Special 510(k) section

510(K) SUMMARY OF SAFETY AND EFFECTIVENESS INFORMATION
as required by section 807.92(c)

Submitter of 510(k):

Company name: Nucletron Corporation
Registration number: 1121753
Address: 7080 Columbia Gateway Drive
Columbia, MD 21046-2133
Phone: 410-312-4100
Fax: 410-312-4197
Correspondent: Lisa Dimmick
Director Assurance & Regulatory Affairs

Modified Device Name:

Trade/Proprietary Name: Real Time HDR
Common/Usual Name: Radiation Therapy Planning System
Classification Name: Accessory to Radiotherapy Device
Classification: 21Cfr892.5050 Class II

Legally Marketed Device(s)

Our device is substantially equivalent to the legally marketed predicate device cited in the table below:

Manufacturer	Device	510(k) #
Nucletron BV	SPOT (Sonographic Planning of Oncology Treatments)	K992303

Description:

Real Time HDR (RT HDR) is a "real time" treatment planning system for brachytherapy especially meant for treatment of cancer in the prostate. Direct 3D Ultrasound imaging of the

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Nucletron Real Time HDR
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treatment gives the physician the possibility to update the planning of the dwell positions of the source in the prostate of the patient.

The program provides a variety of plan evaluation tools to assist in generating the most optimal dose distribution, i.e. dose volume histograms, dose verification points and dose profiles. The software program provides the physician with anatomical and dosimetric information, to determine the positioning and loading of the radioactive sources, prior to radiation treatment. The program also provides the treatment time and dose distribution for the specified loading. From this the information the patient can be treated with the dwell positions of the source.

Modifications to SPOT previously cleared K992303, have been made to add functionality for:

- Post Planning
- Auto activation dwell positions

The Ultrasound acquisition has been changed from longitudinal to transversal.

The Post Planning functionality has been derived from Plato BPS K983343. The Dicom 3 Import/Export has been derived from Plato External Beam K964206.

Real Time HDR (RT HDR) is an accessory to the microSelectron-HDR (V2). The program consists of two modules:

- Treatment Planning Software: Real Time HDR
- Database: Smoothbase

The software runs on a Windows 2000 platform.

Intended use:

The modified device has the same intended use as the legally marketed predicate device cited:

Real Time HDR is intended for use with Brachytherapy procedures, i.e. intercavitary, interstitial, intraluminal, involving afterloading radioactive sources.

Summary of technological considerations:

Real Time HDR is substantially equivalent to the cleared predicate device, SPOT (Sonographic Planning of Oncology Treatments), 510(k)#: K992303.



Name: J. W. H. Meijs
Title: a.i. Business Segment Manager
Nucletron B.V.
Veenendaal, The Netherlands

8/8/2002
Date



Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

OCT 25 2002

Ms. Lisa Cole Dimmick
Director of Regulatory Affairs
Nucletron Corporation
7080 Columbia Gateway Drive
COLUMBIA MD 21046-2133

Re: K022739
Trade/Device Name: Real Time HDR
Regulation Number: 21 CFR 892.5700
Regulation Name: Remote controlled radio-nuclide
applicator system
Regulatory Class: II
Product Code: 90 JAQ and MUJ
Dated: October 4, 2002
Received: October 7, 2002

Dear Ms. Dimmick:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (sections 531-542 of the Act); 21 CFR 1000-1050.

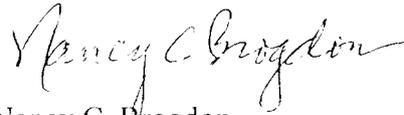
This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

8xx.1xxx.	(301) 594-4591
876.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4616
884.2xxx, 3xxx, 4xxx, 5xxx, 6xxx	(301) 594-4616
892.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4654
Other	(301) 594-4692

Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,



Nancy C. Brogdon
Director, Division of Reproductive,
Abdominal, and Radiological Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure

Indications for Use

510(k)
Number

K022739

Device Name

Real Time HDR

Indications for
Use

Real Time HDR is a software application for Brachytherapy Treatment Planning, for the treatment of cancer, i.e. intercavitary, interstitial, intraluminal, involving radioactive sources.

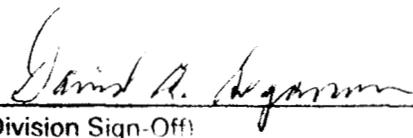
PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF
NEEDED

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓
(Per 21 CFR 801.109)

OR

Over-The-Counter Use _____



(Division Sign-Off)

Division of Reproductive, Abdominal,
and Radiological Devices

510(k) Number

 K022739